

AUDIO

FAQ

Q Can I increase the quality of my MP3s by changing the bit rate?

A No. Converting a file with a low bit rate to a higher bit rate has no effect, as it's not possible to add sound data that isn't in the original file.

You might want to reduce the bit rate of MP3s to make them smaller – from 320Kbit/s to 128Kbit/s for example. This gives you smaller file sizes but sacrifices some audio quality.

Most MP3 encoders, such as LAME (www.lame.sourceforge.net) can re-encode existing files. For convenience, you need a good front-end – our favourite for Windows is Foobar2000 (www.foobar2000.org). This is a free audio player and ripper, but you'll have to download the codecs separately.

If you want to keep high-quality master files to convert into various lower-quality versions, we recommend using a lossless format, such as FLAC (www.flac.sourceforge.net), which compresses audio without removing any of the sound data.

Kat Orphanides

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HERCULES DJ Console RMX

★★★★★

COMPUTER SHOPPER
ULTIMATE

£256 inc VAT

From www.millenium-music.co.uk



The DJ Console RMX is Hercules's flagship DJ product, and it can do more than simply mix MP3s. You can connect its rear audio ports either to turntables or powered sources such as CD or MP3 players. At the front, the console has a microphone input and a headphone output for monitoring. Its sturdy steel and brushed aluminium chassis bristles with knobs, sliders, blue-lit buttons and a pair of jog dials. The controls are well positioned and easy to use. You can use the jog dials either to scratch tracks or navigate to the right point in a cued track. Sliders enable you to change tempo, pitch and volume, and crossfade between tracks.

The RMX comes with Atomix VirtualDJ 5 DCJ for Windows and Mac OS X. This is a light version of VirtualDJ that has been customised to work with the console. While many sound cards and USB audio devices come with trial versions that have been crippled so as to be almost useless, this is a brilliant and fully functional digital mixing interface. The console also works with other DJ software, although you may have to assign manually some of the MIDI channels that control the sliders and buttons.

The key to mixing tracks into a seamless flow of music is beat matching, where you alter the speed of the track you're mixing in to synchronise it with the one that's playing. VirtualDJ scans every track to analyse its tempo. It can use this tempo analysis to warn you if a track is too fast or slow to mix with the current track. The main mixer screen displays scrolling waveforms of the

loaded tracks, along with visual beat markers that make them easier to synchronise. The Beat Lock buttons on the Console lock the tracks' pitch so you can use the pitch slider to change just the tempo. If you have trouble matching beats, you can press the Sync button to do it automatically, although this isn't flawless. Buttons on the console trigger effects, including loops, pitch bends, a flanger and a beat grid generator that creates drum fills based on the track's bass line.

Sound quality was excellent, with clear, precise reproduction of bass frequencies, mid-tones and high notes. This can show up the failings of tracks encoded at low bit rates, so you'll have to use high-quality audio files. We would have liked to see support for lossless audio formats, but high-quality variable bit rate MP3s still sounded great.

We loved the DJ Console RMX and VirtualDJ DCJ

software. If you've ever used any software or hardware DJ tools before, it won't be long before you're used to the equipment and blending tracks seamlessly. Along with a laptop loaded with MP3s, this is everything you need to mix a full set, whether you're hooked into a stereo at a friend's party or plugged into the PA at a club.

Kat Orphanides

SUMMARY

- ✓ Great software
- ✓ High-quality sound
- ✓ Excellent build quality

USB DJ CONSOLE 1/4in headphone, 4x 1/4in outputs, 2x stereo phono outputs, 2x stereo phono inputs, 1/4in mic input, USB Hi-Speed interface
PART CODE DJ Console RMX
DETAILS www.hercules.com

Also consider...

SANDISK Sansa e280

★★★★★

COMPUTER SHOPPER
BEST BUY

£66 inc VAT

From www.lambda-tek.com/componentshop



This 8GB MP3 player is great value. It has an impressive battery life of 18 hours and 17 minutes. Its control wheel and menu system are easy to use and the 1.8in colour screen is free from graininess. Audio quality was consistently good, and we were impressed by the speed and stability of its video-conversion software. It can be expanded via microSD cards.

MP3 PLAYER 8GB capacity, supports MP3, WMA, WMA-DRM, JPEG and BMP images, MOV video (with limitations), USB Hi-Speed interface
PART CODE SDMX4-8192-A70
DETAILS www.sandisk.com
FULL REVIEW Nov 2007

SHURE SE210

★★★★★

COMPUTER SHOPPER
BEST BUY

£65 inc VAT

From www.play.com

Shure's SE210 sound-isolating earphones block out almost all external noise, thanks to foam sleeves that expand to fill the ear canal. This makes music sound clear and powerful even at low volumes. They produce a rich, precise sound and an excellent listening experience. Wearing the foam sleeves feels strange at first, and the cables and connectors are heavier than those of most earphones, but you soon get used to it.



EARPHONES 3.5mm stereo jack plug, 45cm cable, 10g, sensitivity 114dB, frequency response 22-19,000Hz, impedance 26 ohms
DETAILS www.shure.co.uk
FULL REVIEW Mar 2008

LOGITECH X-230

★★★★★

COMPUTER SHOPPER
BUDGET BUY

£27 inc VAT

From www.misco.co.uk

Logitech's X-230 speakers are among our all-time favourites, with a sound that's clearer, richer and more balanced than any other set under £50, and a few that cost more. The volume and bass controls are on the right satellite and subwoofer respectively, and all the cables except power protrude from the right satellite. If you want a set for music or games, there are no better speakers for this price.



STEREO SPEAKERS 2.1 configuration, 32W power, 3.5mm stereo cable inputs
PART CODE 970123-1120
DETAILS www.logitech.com
FULL REVIEW Jun 2008

LOGITECH Z Cinema 2.1

★★★

£222 inc VAT
From www.morecomputers.com



Logitech's Z Cinema USB speakers try to create the impression of surround sound using a 2.1 speaker configuration. They come with a Media Center remote control, but their interface software proved unstable under Vista.

Virtual surround sound is created using SRS TruSurround HD, controlled by the ZCinema PC interface. It's a slight improvement over standard 2.1 sound, but isn't noticeably better than other software-based surround sound, such as the SRS TruSurround XT. This is used by CyberLink's PowerDVD to create virtual surround sound through any set of speakers or headphones.

If we sat in the right place, sound seemed to wrap around us, but it was difficult to distinguish its direction. Audio quality was excellent, with loud bass, and clear treble and midrange notes.

These speakers bring a sense of surround sound to your PC, but it's a mediocre approximation that isn't worth the price. Many true surround sound sets cost less, including Logitech's excellent G51 (see *Labs, Shopper* 244).

Kat Orphanides

SUMMARY

- ✓ Good sound quality
- ✗ Surround effect is limited
- ✗ Expensive

2.1 SPEAKER SET 180W RMS power, 3.5mm stereo input. Power consumption 10W standby, 18W active
PART CODE 980-000086
DETAILS www.logitech.com

DENON ASD-3W

★★★

£130 inc VAT
From www.hifi.bitz.co.uk



Denon's ASD-3W is an iPod docking station and streaming audio receiver that connects to a home entertainment system. It isn't a standalone device and must be connected to a TV via S-video to display the basic menu system. Stereo phono outputs connect to external speakers, and there are wired and wireless networking connections.

The interface was easy to use but responded slowly when we scrolled through long track lists. Some menus froze until we restarted the device. Internet radio comes through the vTuner service.

It's compatible with fourth-generation iPods and above, but iPhones must be in Airplane mode.

The ASD-3W is cheaper than most audio streamers. It's fine for adding streaming audio and iPod support to your home entertainment system, but we'd rather not be bound to a TV. Roberts' WM201 (see *Labs, Shopper* 244) costs £50 more and lacks an iPod dock, but has built-in speakers and is a much better streaming device.

Kat Orphanides

SUMMARY

- ✓ Inexpensive
- ✗ Sluggish interface
- ✗ Requires a TV

STREAMING AUDIO RECEIVER/IPOD DOCK 1x stereo phono output, 1x S-video output, supports WMA, WMA-DRM, AAC, WAV, MP3, FLAC audio, AAC, MP3, WMA internet radio streams
PART CODE ASD-3W
DETAILS www.denon.co.uk

CHOOSING A... Pair of Headphones

Follow the steps to find your ideal specs

PLUG TYPE: 3.5mm stereo jack plug

CABLE LENGTH: 80cm

IN-LINE VOLUME: No

ACTIVE NOISE CANCELLING: No

Recommended minimum in grey

1 When choosing a pair of headphones or earphones, comfort is a key consideration. Headphones – the kind that rest over your ears – can be hot and sweaty to wear. Earplug-style earphones fit inside your ear canal, which can feel odd at first. The most common type is earbuds, which sit in your ear just outside the canal.

2 If you want to block out ambient noise, you should get either active noise-cancelling or passive sound-isolating headphones. Sound-isolating headphones block out sound with expanding foam tips that you insert in your ear canal, while noise cancellation headphones create an inverse sound wave that cuts out low-frequency background noise such as engines or air conditioners.

3 If you're serious about music, you'll probably want to pay a little more for a set of high-end headphones. Unfortunately, neither price nor specifications will tell you much about their quality, so check our reviews first. Some specialist retailers will let you try out a variety of different sets before you buy, and this is the only way to make sure earbuds and plugs are the right size for your ears, or that a particular set of headphones sits comfortably and securely on your head. Remember to take an MP3 player with some tracks that you know well.

4 USB headphones designed for gamers have a built-in sound card. They're a useful alternative to mediocre onboard sound but don't work without a PC. Wireless versions are useful if you don't want to get tangled in cables.

5 If you want headphones to use with your home cinema system, several companies make surround sound sets with multiple speakers and hardware decoders. Other headphones advertised as "surround sound" actually use software to create virtual surround sound. This can be effective, but you can buy the same software separately for less and use it with any standard set of headphones.

APPLE iPod Nano

★★★★★

£129 inc VAT
From www.apple.com/uk

COMPUTER SHOPPER
BEST BUY

The latest version of Apple's iPod Nano combines great audio quality with a sharp 2in screen to create an outstanding multimedia player. It lasted over 30 hours in our audio battery test, and over five during video playback. With our reference headphones it produced clear, rich sound.



MP3 PLAYER 8GB capacity, supports MP3, Wav, AAC, Protected AAC, Audible, Apple Lossless and AIFF audio, JPEG images, H.264 and MPEG4 video (with limitations), USB Hi-Speed interface
PART CODE MB257ZO/A
DETAILS www.apple.com/uk
FULL REVIEW Dec 2007

IRHYTHMS A-211

★★★★★

£103 inc VAT
From www.scan.co.uk

COMPUTER SHOPPER
BEST BUY

iPod-docking speakers often provide mediocre sound quality and poor value compared with standard PC speakers. IRhythms' A-211 set bucks this trend. The subwoofer-based design gives deeper bass and louder overall volumes than all-in-one designs, and sound quality is very high, making it well suited for use both with iPods and computers.



IPOD DOCK SPEAKERS 2.1 configuration, 133W RMS power, compatible with all docking iPods and first-generation Shuffle, auxiliary line input
PART CODE LN16326
DETAILS www.irhythms.com
FULL REVIEW Oct 2007

PHILIPS SHE2550 Extra Bass

★★★★★

£5 inc VAT
From www.argos.co.uk

COMPUTER SHOPPER
BUDGET BUY

These earphones are incredibly cheap but far superior to the sets that come with most MP3 players. They're comfortable, and their open speakers create a full, natural sound that's particularly well suited to rock, pop and dance music. They produce loud, solid bass tones, but not at the expense of clarity and precision.



EARPHONES 3.5mm stereo jack plug, 1.1m cable, 87g, sensitivity 106dB, frequency response 12-22,000Hz, impedance 16 ohms
PART CODE SHE2550/00
DETAILS www.philips.co.uk
FULL REVIEW Mar 2008